

Application No. 08/499,423

AMENDMENTS TO THE CLAIMS:

Claim 1. (currently amended) An article comprising a porous polytetrafluoroethylene tube covered by one or more layers of porous polytetrafluoroethylene film, said tube having a circumference wherein the circumference of said porous polytetrafluoroethylene tube increases in response to the application of internal pressure up to a second circumference, thereafter the tube itself limits further growth in the circumference so as to remain substantially unchanged from the second circumference with further increasing internal pressure.

Claim 2. (cancelled)

Claim 3. (previously amended) The tube of claim 1 having a wall thickness less than or equal to about 0.25 mm.

Claim 4. (original) The tube of claim 3 having a wall thickness less than or equal to about 0.10 mm.

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Claim 5. (currently amended) The tube of claim 1 wherein said porous polytetrafluoroethylene tube has a microstructure of nodes interconnected by fibrils.

Claim 6. (currently amended) The tube of claim 5 wherein said [tube is covered by] one or more [helical] layers of porous polytetrafluoroethylene [material] film are helical layers.

Claim 7. (currently amended) The tube of claim 6 in which said helical layers are[porous polytetrafluoroethylene material is] in the form of a tube.

Claim 8. (cancelled)

Claim 9. (currently amended) The tube of claim 6 in which said porous polytetrafluoroethylene film[material] is thermally bonded to the porous polytetrafluoroethylene tube.

Claim 10. (original) The tube of claim 6 in which the tube exhibits minimal recoil following removal of a circumferentially distending force.

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Claim 11. (original) The tube of claim 10 exhibiting minimal recoil of 14 percent or less.

Claim 12. (original) The tube of claim 11 exhibiting minimal recoil of 10 percent or less.

Claim 13. (original) The tube of claim 12 exhibiting minimal recoil of 7 percent or less.

Claim 14. (previously amended) The tube of claim 6 adapted for use as a vascular graft.

Claim 15. (original) The tube of claim 14 having a wall thickness less than or equal to about 0.25 mm.

Claim 16. (original) The tube of claim 15 having a wall thickness less than or equal to about 0.10 mm.

Claim 17. (original) The tube of claim 14 having first and second opposing ends wherein the second circumference at the first opposing end is larger than the second circumference at the second opposing end whereby the tube is tapered between the first and second opposing ends.

Claim 18. (original) The tube of claim 14 wherein the tube is branched and has at least three ends.

Claim 19. (previously amended) The tube of claim 14 adapted for use as an intraluminal graft.

Claim 20. (original) The tube of claim 19 wherein the intraluminal graft is secured to a blood conduit by sutures.

Claim 21. (original) The tube of claim 19 wherein the intraluminal graft is secured to a blood conduit by a stent.

Claim 22. (original) The tube of claim 19 wherein the circumference is increased by inflating a balloon.

Claim 23. (original) The tube of claim 19 wherein the circumference is increased by blood pressure.

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Claim 24 (previously amended) The tube of claim 1 adapted for use as a vascular graft.

Claim 25 (previously amended) The tube of claim 24 adapted for use as an intraluminal graft.

Claim 26. (original) The tube of claim 1 wherein the tube exhibits minimal recoil following a substantial reduction in pressure.

Claim 27. (currently amended) The tube of claim 1 wherein the film-covered tube comprises an interior liner adapted for use within a separate tubular form selected from the group consisting of tubes, pipes and blood conduits.

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Claim 28. (original) The tube of claim 27 wherein the blood conduits are prosthetic vascular grafts.

Claim 29. (original) The tube of claim 27 wherein the blood conduits are living blood vessels.

Claim 30. (original) The tube of claim 27 wherein the interior liner covers an anastomosis.

Claim 31. (original) The tube of claim 1 having first and second opposing ends wherein the second circumference at the first opposing end is larger than the second circumference at the second opposing end whereby the tube is tapered between the first and second opposing ends.

Claim 32. (original) The tube of claim 1 wherein the tube is branched and has three ends.

Claim 33. (currently amended) An article comprising a porous polytetrafluoroethylene tube covered by one or more layers of porous polytetrafluoroethylene film, said film-covered tube having a first circumference at a first internal pressure of atmospheric pressure, a second circumference at a second internal pressure of greater than atmospheric pressure, said second circumference being greater than the first circumference, wherein upon applying an internal pressure greater than the second internal pressure, the porous polytetrafluoroethylene film-covered tube itself limits further growth beyond the second circumference.

Claim 34. (cancelled)

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Claim 35. (currently amended) The article of claim 34 wherein said tube is adapted for use as a vascular graft.

Claims 36-41 (cancelled)

Claim 42. (currently amended) An article comprising a porous polytetrafluoroethylene tube covered by one or more layers of porous polytetrafluoroethylene film, said film-covered tube having a circumference wherein the circumference of said porous polytetrafluoroethylene film-covered tube increases in response to the application of a circumferentially distending force, wherein the porous polytetrafluoroethylene film-covered tube itself limits recoil to 14 percent or less following removal of the circumferentially distending force.

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Claim 43. (original) A tube according to claim 42 wherein the recoil is 10 percent or less.

Claim 44. (original) A tube according to claim 43 wherein the recoil is 7 percent or less.

Claim 45. (cancelled)

Claim 46. (previously amended) A tube according to claim 42 wherein the tube comprises a vascular graft.

Claim 47. (original) A tube according to claim 46 wherein the application of the circumferentially distending force is the result of inflation of a balloon catheter.

Claim 48. (original) A tube according to claim 46 wherein the application of the circumferentially distending force is from the application of blood pressure.

Claim 49. (original) A tube according to claim 46 wherein the vascular graft has a wall thickness less than about 0.25 mm.

Claim 50. (original) A tube according to claim 46 wherein the vascular graft is secured by the use of sutures.

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Claim 51. (original) A tube according to claim 46 wherein the vascular graft is secured by a stent.

Claim 52. (original) A tube according to claim 46 wherein the circumference of said vascular graft increases in response to the application of internal pressure up to a second circumference, thereafter the circumference remaining substantially unchanged with increasing internal pressure.

Claim 53. (original) A tube according to claim 52 wherein the application of internal pressure is the result of inflation of a balloon catheter.

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Claim 54. (original) A tube according to claim 52 wherein the application of internal pressure is from the application of blood pressure.

Claim 55. (original) A tube according to claim 52 wherein the vascular graft has a wall thickness less than about 0.25 mm.

Claim 56. (original) A tube according to claim 52 wherein the vascular graft is secured by the use of at least one suture.

Claim 57. (original) A tube according to claim 52 wherein the vascular graft is secured by a stent.

Claim 58. (currently amended) A tube according to claim 42[45] wherein the tube[vascular graft] is adapted for use as an intraluminal graft.

Claim 59. (original) A tube according to claim 58 wherein the application of internal pressure is the result of inflation of a balloon catheter.

Claim 60. (original) A tube according to claim 58 wherein the application of internal pressure is from the application of blood pressure.

Claim 61. (original) A tube according to claim 58 wherein the intraluminal graft has a wall thickness less than about 0.25 mm.

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Claim 62. (original) A tube according to claim 58 wherein the intraluminal graft is secured by the use of at least one suture.

Claim 63. (original) A tube according to claim 58 wherein the intraluminal graft is secured by a stent.

Claim 64. (original) A tube according to claim 58 wherein the circumference of said intraluminal graft increases in response to the application of internal pressure up to a second circumference, thereafter the circumference remaining substantially unchanged with increasing internal pressure.

Claim 65. (original) A tube according to claim 64 wherein the application of internal pressure is the result of inflation of a balloon catheter.

Claim 66. (original) A tube according to claim 64 wherein the application of internal pressure is from the application of blood pressure.

Claims 67-73 (cancelled)

Claim 74. (currently amended) A tube according to claim 43 wherein the tube is adapted for use as an intraluminal graft.

Claim 75. (original) A tube according to tube 74 wherein the intraluminal graft has a wall thickness less than about 0.25 mm.

Claim 76. (currently amended) A tube according to claim 74 wherein the circumference of the tube increases in response to the application of internal pressure up to a second circumference, thereafter the circumference remaining substantially unchanged with further increasing internal pressure.

Claim 77. (original) A tube according to tube 76 wherein the vascular graft has a wall thickness less than about 0.25 mm.

Claim 78 (cancelled)

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Claim 79. (previously amended) A tube according to claim 78 wherein the vascular graft has a wall thickness less than about 0.25 mm.

Claim 80. (currently amended) A tube according to claim 78 wherein the circumference of the tube increases in response to the application of internal pressure up to a second circumference, thereafter the circumference remaining substantially unchanged with further increasing internal pressure.

Claim 81. (original) A tube according to tube 80 wherein the vascular graft has a wall thickness less than about 0.25 mm.

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Claim 82. (currently amended) A tube according to claim 44 wherein the tube is adapted for use as an intraluminal graft.

Claim 83. (original) A tube according to tube 82 wherein the intraluminal graft has a wall thickness less than about 0.25 mm.

Claim 84. (currently amended) A tube according to claim 82 wherein the circumference of the tube increases in response to the application of internal pressure up to a second circumference, thereafter the circumference remaining substantially unchanged with further increasing internal pressure.

Claim 85. original) A tube according to tube 82 wherein the vascular graft has a wall thickness less than about 0.25 mm.

Claim 86. (original) An article comprising a tube having a circumference wherein the circumference of said tube increases in response to the initial application of blood pressure.

Claim 87. (currently amended) A tube according to claim 86 wherein said tube is adapted for use as a vascular graft.

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Claim 88. (currently amended) A tube according to claim 86[87] wherein [the vascular graft]said tube is adapted for use as an intraluminal graft.

Claims 89 and 90 (cancelled)

Claim 91. (original) A tube according to claim 86 wherein the tube exhibits minimal recoil following the removal of blood pressure.

✓ Claim 92. (original) A tube according to claim 91 wherein the minimal recoil is 14 percent or less.

f1 Claim 93. (original) A tube according to claim 92 wherein the minimal recoil is 10 percent or less.

Claim 94. (original) A tube according to claim 93 wherein the minimal recoil is 7 percent or less.

Claim 95. (currently amended) A tube according to claim 91 wherein the tube is adapted for use as a vascular graft.

Claim 96. (currently amended) A tube according to claim 91[95] wherein the [vascular graft] tube is adapted for use as an intraluminal graft.

Claim 97. (original) A tube according to claim 91 wherein the tube comprises porous polytetrafluoroethylene.

Claims 98-117 (cancelled)